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| 10/066,098 | 01/31/2002 | Fabio Casati | 10010118-1 | 6026 |

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| EXAMINER | |
|---|---|
| NASH, LASHANYA RENEE | |
| ART UNIT | PAPER NUMBER |
| 2492 | |

| NOTIFICATION DATE | DELIVERY MODE |
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| 10/27/2010 | ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/066,098 | CASATI ET AL. | |
| | Examiner | Art Unit | |
| | LASHANYA R. NASH | 2492 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *28 July 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-3,5-7,11-14,16-18,27,28,30 and 31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3, 5-7, 11-14, 16-18, 27-28 and 30-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

This Office action is in response to the amendment filed 28 July 2010. Claims 1-3, 5-7, 11-14, 16-18, 27-28 and 30-31 are presented for further consideration. Claims 1, 2, 3, 7, 11, 12, 13, 14 and 30 are currently amended.

## *Response to Arguments*

Applicant's arguments (e.g. the translation/conversion process of Kuno does not perform any dynamic plugging in a selected conversation logic node at run time), see Remarks, filed 28 July 2010, with respect to the rejection of claims 1-3, 5-7, 11-14, 16-18, 27-28 and 30-31 under 35 UCS 102 have been fully considered and are persuasive in light of the amendments. Therefore, the rejection has been withdrawn. However, upon further consideration, a new grounds of rejection is made in view of a newly found prior art reference Stewart et al. (US Patent 7,051,072), as set forth below in the Office action.

Applicant's arguments (e.g. the combination of Czerwinski and Kuno fails to disclose or hint to performing any dynamic plugging in a selected conversation logic node at run time), see Remarks, filed 28 July 2010, with respect to the rejection of claims 1-3, 5-7, 11-14, 16-18, 27-28 and 30-31 under 35 UCS 102 have been fully considered and are persuasive in light of the amendments. Therefore, the rejection has been withdrawn. However, upon further consideration, a new grounds of rejection is

made in view of a newly found prior art reference Stewart et al. (US Patent 7,051,072), as set forth below in the Office action.

## *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

**Claims 1, 11-14, 16-19, 27, 29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuno et al. ["Conversations + Interferences = Business Logic"-retrieved from the Internet] in view of Stewart et al. (US Patent 7,051,072), hereinafter referred to as Kuno and Stewart respectively.**

In reference to claim 1, Kuno discloses:

- A method for selecting a conversation logic at run-time for a workflow definition that includes at least one node with no hard-coded conversation logic (abstract; title page), the method comprising the steps of:
- a) maintaining a conversation logic repository that includes plural conversation logic (i.e. UDDI registry of conversation definitions; *3.2 Web Service Conversation Language*, page 5), wherein each of the plural conversation logic is external to the workflow definition (i.e. conversation is implemented differently than the workflow logic; *5 Related Work*, page 12, paragraph 2), wherein each of the plural conversation logic specifies a corresponding set of operations to be

performed on a respective service (WSCL specification; *3.2 Web Service Conversation Language*, page 6);

- b) when executing the node with no hard-coded conversation logic (i.e. e-service client not hard-coded with conversation logic; *4.1 Client automation*, page 10), dynamically discovering, by a computer, a service associated with the node with no hard-coded conversation logic, wherein the discovered service is selected from among plural services (i.e. e-services discovery; *2. Approach*, page 1);
- c) selecting one of the plural conversation logic in the conversation logic repository based on the discovered service (i.e. conversation mapped to appropriate service; *4. Dynamic Conversation Controller for E-services*; paragraphs 1-3; pages 8-9); and

However, the reference fails to disclose dynamically plugging in the determined selected conversation logic into the node at run time in the computer, wherein the run time is a time during which the node with no hard-coded conversation logic is being executed. Nonetheless, this was well known in the art at the time of the invention as further evidenced by Stewart. Therefore, it would have been obvious for one of ordinary skill in the art to accordingly modify the teachings of Kuno.

In an analogous art, Stewart discloses a mechanism for providing real-time conversations among business logic. Stewart discloses dynamically plugging in the determined selected conversation logic into the node at run time in the computer, wherein the run time is a time during which the node with no hard-coded conversation logic is being executed (i.e. logic plug-ins; column 19, line 19-column 20, line 54). One

of ordinary skill in the art would have been so motivated to accordingly modify the teachings of Kuno so as to enable business makers to design and implement business rules that meet their specific needs (column 10, lines 20-31).

In reference to claim 11, Kuno discloses:

- A system for dynamically selecting a conversation logic at run-time for a workflow definition that includes at least one node with no hard-coded conversation logic (abstract; title page) comprising:
- a) a workflow engine (*Related Work*, page 12, paragraph 2) for processing workflow definition (i.e. service definition; *3.3. Web-Service Definition Language*; page 7);
- b) a conversation logic repository that includes plural conversation logic (i.e. UDDI registry of conversation definitions; *3.2 Web Service Conversation Language*, page 5) and that is external to the workflow definition (i.e. conversation is implemented differently than the workflow logic; *5 Related Work*, page 12, paragraph 2), wherein each of the plural conversation logic specifies a corresponding set of operations to be performed on a respective service (WSCL specification; *3.2 Web Service Conversation Language*, page 6);
- an engine (i.e. conversation controller) configured to select one of the plural services for execution of the node with no hard-coded conversation logic, (*4.1 Client Automation*, paragraph 2; pages 10-11);

- c) a dynamic conversation logic selection mechanism configured to receive a service identifier that is associated with the selected service at run-time and based on the service identifier to select a conversation logic from the plural conversation logic for interacting with the selected service at run-time (i.e. conversation mapped to appropriate service; *4. Dynamic Conversation Controller for E-services*; paragraphs 1-3; pages 8-9).

However, the reference fails to disclose wherein the dynamic conversation logic selection mechanism is configured to further dynamically plug in the selected conversation logic into the node at run-time, where the run-time node is a time during which the node with no hard-coded conversation logic is being executed. Nonetheless, this was well known in the art at the time of the invention as further evidenced by Stewart. Therefore, it would have been obvious for one of ordinary skill in the art to accordingly modify the teachings of Kuno.

In an analogous art, Stewart discloses a mechanism for providing real-time conversations among business logic. Stewart discloses wherein the dynamic conversation logic selection mechanism is configured to further dynamically plug in the selected conversation logic into the node at run-time, where the run-time node is a time during which the node with no hard-coded conversation logic is being executed (i.e. logic plug-ins; column 19, line 19-column 20, line 54). One of ordinary skill in the art would have been so motivated to accordingly modify the teachings of Kuno so as to enable business makers to design and implement business rules that meet their specific needs (column 10, lines 20-31).

In reference to claim 12, Kuno discloses the system of claim 11 further comprising: a source for services; wherein the source is configured to discover services based on a service selection rule; wherein the dynamic conversation logic selection mechanism (DCLSM) (i.e. dynamic conversation controller) selects appropriate conversation logic from the conversation logic repository based on a discovered service, (*4. Dynamic Conversation Controller for E-services*; pages 8-9).

In reference to claim 13, Kuno discloses the system of claim 12 wherein the source is one of a service broker, a service marketplace, and an e-services platform (i.e. e-service; *4.1 Client automation*, page 10).

In reference to claim 14, Kuno discloses, wherein only services that have a conversation protocol compatible with one of the conversation logic available in the repository are considered for selection for execution of the node (; *4.1 Client automation*, page 10).

In reference to claim 16, Kuno discloses wherein a particular one of the plural conversation logic is for the exclusive use of a given one of the plural services (*4. Dynamic Conversation Controller for E-services*; paragraphs 1-3; pages 8-9).

In reference to claim 17, Kuno discloses wherein another of the plural conversation logic is shared by two or more of the plural services (*4. Dynamic Conversation Controller for E-services*; paragraphs 1-3; pages 8-9).

In reference to claim 18, Kuno discloses wherein the selected conversation logic is not defined in a workflow at process definition time (*5 Related Work*, page 12, paragraph 2)

In reference to claim 19, Kuno discloses wherein the dynamic conversation logic selection mechanism is configured to perform late binding of the selected conversation logic at run-time (*4.1. Client automation*, page 10).

In reference to claim 27, Kuno discloses wherein different ones of the plural conversation logic are compatible with different ones of the plural services, and wherein selecting one of the plural conversation logic comprises selecting a conversation logic that is compatible with the discovered service (*3.3. Web-Service Definition Language (WSDL)*, page 7).

In reference to claim 29, Kuno discloses, wherein the dynamic conversation logic is configured to dynamically plug the selected conversation logic into the node (*3.2 Web Service Conversation Language*, paragraph 2; page 5).

In reference to claim 31, Kuno discloses wherein different ones of the plural conversation logic are compatible with different ones of the plural services, and wherein selecting one of the plural conversation logic comprises selecting a conversation logic that is compatible with the discovered service (*3.3. Web-Service Definition Language (WSDL)*, page 7).

**Claims 2, 3, 5-7 and 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuno et al. ["Conversations + Interferences = Business Logic"-retrieved from the Internet] in view of Czerwinski et al. ["An Architecture for a Secure Service Discovery Service"-retrieved from ACM database] and Stewart et al. (US Patent 7,051,072), hereinafter referred to as Kuno and Czerwinski and Stewart respectively.**

In reference to claim 3, Kuno discloses:

- A method for selecting a conversation logic at run-time (abstract; title page) comprising the steps of:
- maintaining a conversation logic repository that includes at least one conversation logic (i.e. UDDI registry of conversation definitions; *3.2 Web Service Conversation Language*, page 5), wherein each of the plural conversation logic specifies a corresponding set of operations to be performed on a respective service (WSCL specification; *3.2 Web Service Conversation Language*, page 6);
- at run-time, sending a service selection query to an electronic services platform or other service broker (i.e. e-service discovery*; 2 Approach*, page 2) ;

- receiving a returned service identifier (i.e. business service information in message; *3.1. UDDI Registries*, page 4); and selecting a conversation logic from the conversation logic repository based on the returned service identifier (i.e. conversation mapped to appropriate service; *4. Dynamic Conversation Controller for E-services*; paragraphs 1-3; pages 8-9).

However, the reference fails to disclose sending a selection query to an electronic service platform or other service broker, wherein the service selection query is for selecting a service from among plural services, and the returned service identifier corresponding to the selected service. Nonetheless, this was a well known feature in service discovery in the art at the time of the invention, as further evidenced by Czerwinski. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to accordingly modify the teachings of Kuno.

In an analogous art, Czerwinski discloses architecture for service discovery in a networked environment (*abstract*). Furthermore sending a selection query to an electronic service platform or other service broker, wherein the service selection query is for selecting a service from among plural services (i.e. clients employ queries for location of services; *abstract*), and the returned service identifier corresponding to the selected service (i.e. unique service key; 6.*1 DNS and Globe*; page 32 ). One of ordinary skill in the art would have been so motivated to accordingly modify the teachings of Kuno so as to support end-users locating a particular network service out a plurality (i.e. hundreds of thousands) of accessible services discovered (Czerwinski ; *abstract*). However, the reference fails to disclose dynamically plugging in the

determined selected conversation logic into the node at run time in the computer, wherein the run time is a time during which the node with no hard-coded conversation logic is being executed; and dynamically plugging in the selected conversation logic into the node with no hard-coded conversation logic. Nonetheless, this was well known in the art at the time of the invention as further evidenced by Stewart. Therefore, it would have been obvious for one of ordinary skill in the art to accordingly modify the teachings of Kuno.

In an analogous art, Stewart discloses a mechanism for providing real-time conversations among business logic. Stewart discloses dynamically plugging in the determined selected conversation logic into the node at run time in the computer, wherein the run time is a time during which the node with no hard-coded conversation logic is being executed; and dynamically plugging in the selected conversation logic into the node with no hard-coded conversation logic (i.e. logic plug-ins; column 19, line 19-column 20, line 54). One of ordinary skill in the art would have been so motivated to accordingly modify the teachings of Kuno so as to enable business makers to design and implement business rules that meet their specific needs (column 10, lines 20-31).

In reference to claim 2, Kuno and Stewart disclose the method of claim 1wherein the step of when executing the node with no hard-coded conversation logic, dynamically discovering a service associated with the node with no hard-coded conversation logic includes the steps of: determining a service based on a service selection rule; receiving a service reference; and wherein the step of determining a corresponding conversation

logic in the conversation logic repository based on the discovered service further includes the step of using the service reference to determine a conversation logic for the determined service (Kuno; *4. Dynamic Conversation Controller for E-services*; paragraphs 1-3; pages 8-9).However, the reference fails to disclose sending a selection query to an electronic service platform or other service broker, wherein the service selection query is for selecting a service from among plural services, and the returned service identifier corresponding to the selected service. Nonetheless, this was a well known feature in service discovery in the art at the time of the invention, as further evidenced by Czerwinski. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to accordingly modify the teachings of Kuno and Stewart.

In an analogous art, Czerwinski discloses architecture for service discovery in a networked environment (*abstract*). Furthermore sending a selection query to an electronic service platform or other service broker, wherein the service selection query is for selecting a service from among plural services (i.e. clients employ queries for location of services; *abstract*), and the returned service identifier corresponding to the selected service (i.e. unique service key; 6.*1 DNS and Globe*; page 32 ). One of ordinary skill in the art would have been so motivated to accordingly modify the teachings of Kuno and Stewart so as to support end-users locating a particular network service out a plurality (i.e. hundreds of thousands) of accessible services discovered (Czerwinski ; *abstract*).

In reference to claim 5, Kuno discloses the method of claim 3 wherein a particular one of the plural conversation logic is for the exclusive use of a given one of the plural services (*4. Dynamic Conversation Controller for E-services*; paragraphs 1-3; pages 8-9).

In reference to claim 6, Kuno discloses the method of claim 3 wherein another of the plural conversation logic is shared by two or more of the plural services (*4. Dynamic Conversation Controller for E-services*; paragraphs 1-3; pages 8-9).

In reference to claim 7, Kuno discloses the method of claim 3 wherein the conversation logic is not defined in a workflow at process definition time, the workflow defining a procedure that executes services (*5 Related Work*, page 12, paragraph 2)

In reference to claim 28, Kuno discloses wherein different ones of the plural conversation logic are compatible with different ones of the plural services, and wherein selecting one of the plural conversation logic comprises selecting a conversation logic that is compatible with the discovered service (*3.3. Web-Service Definition Language (WSDL)*, page 7).

In reference to claim 30, Kuno and Stewart fail to disclose the engine to select one of the plural services configured to submit a selection service query to an electronic platform to perform selection of the selected services from the plural services. Nonetheless, this was a well known feature in service discovery in the art at the time of

the invention, as further evidenced by Czerwinski. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to accordingly modify the teachings of Kuno and Stewart.

In an analogous art, Czerwinski discloses architecture for service discovery in a networked environment (*abstract*). Furthermore submitting a selection service query to an electronic platform to perform selection of the services from the plural services (i.e. clients employ queries for location of services; *abstract*), and the returned service identifier corresponding to the selected service (i.e. unique service key; 6*.1 DNS and Globe*; page 32). One of ordinary skill in the art would have been so motivated to accordingly modify the teachings of Kuno and Stewart so as to support end-users locating a particular network service out a plurality (i.e. hundreds of thousands) of accessible services discovered (Czerwinski ; *abstract*).

## *Conclusion*

The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. The references: Shenoy et al. (US Patent Application Publication 2002/0040304); Lemon et al. (US Patent Application Publication 2002/0188666); and Saran et al. (US Patent Application Publication 2003/0097457) are relevant to Applicant's invention as the references disclose dynamic conversation logic in an e-business environment.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LASHANYA R. NASH whose telephone number is (571)272-3957. The examiner can normally be reached on 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached on (571) 272-6776. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LaShanya R Nash/
Examiner, Art Unit 2492
October 19, 2010

/JOSEPH THOMAS/
Supervisory Patent Examiner, Art Unit 2492